PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Docket No: Q76450
Je-Chang JEONG, et al.	
Appln. No.: 10/612,013	Group Art Unit: 2612
Confirmation No.: 5445	Examiner: VO, TUNG T
Filed: July 3, 2003	

For: SIGNAL COMPRESSING SYSTEM

AMENDED APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notification of Non-Compliant Appeal Brief dated February 23, 2007, and in accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following[1]:

Table of Contents

[1] Applicant submits that only Section V, the Summary of the Claimed Subject Matter, has been amended from the Appeal Brief filed October 6, 2006.

I. REAL PARTY IN INTEREST

Based on the information supplied by the Appellant, and the best of Appellant's legal representative's knowledge, the real party in the interest is the assignee, SAMSUNG ELECTRONICS CO., LTD. The present application is a Continuation Application of Application No. 09/703,649, filed November 2, 2000, and issued as U.S. Patent No. 6,680,975, which is a Continuation Application of Application No. 08/024,305, filed March 1, 1993, and issued as U.S. Patent No. 6,263,026. The Assignment in Application No. 08/024,305 was recorded on May 12, 1993, in Reel No. 006674 and Frame No. 0086.

II. RELATED APPEALS AND INTERFERENCES

To the best knowledge and belief of Appellant, the Assignee and the undersigned attorney, there are no other appeals or interferences before the Board of Appeals and Interferences ("the Board") that will directly affect or be affected by the Board's decision in the present Appeal.

III. STATUS OF CLAIMS

Claims 10-18 and 34-41 are all the claims pending in the application.

Claims 10-18 and 34-41 have been finally rejected.

Claims 10-18 and 34-41 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 10-18 and 34-41 are subject to appeal.

IV. STATUS OF AMENDMENTS

The claims on appeal, claims 10-18 and 34-41, have not been amended subsequent to the final rejection of September 6, 2005.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates to signal compression and decompression. See e.g., Abstract of Appellant's Specification, page 8, lines 3-6 and FIG. 4.

Independent claim 10 is directed to a decoder for decompressing a compressed video signal. See e.g., FIG. 4 and page 8, lines 3-6. The compressed video signal contains entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients arranged based on the selected one of the plurality of different scanning patterns and the set of reordered coefficients having been transformed into a symbol state to generate the entropy encoded data, and also containing a scanning mode signal indicating the selected one of the plurality of different scanning patterns, wherein the selected one of the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion. See e.g., page 6, line 1- page 8, line 2.

The decoder includes an entropy decoder operative to decode the entropy encoded data and to output entropy decoded data. See e.g., FIG. 4 (element 110) and page 8, lines 3-6. There is also a scanner operative to scan the entropy decoded data according to the selected one of the plurality of different scanning patterns as indicated by the scanning mode signal. See e.g., FIG. 4 (element 120) and page 8, lines 3-6.

Independent claim 11 is directed to a decoder for decoding a coded data signal containing a compressed video signal and a scanning mode signal. See e.g., FIG. 4 and page 8, lines 3-6. The claimed decoder includes: an entropy decoder to which is applied the compressed video

signal. See e.g., FIG. 4 (element 110) and page 8, lines 3-6. The compressed video signal includes entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a specific pattern selected from a plurality of different scanning patterns, wherein the specific pattern selected from the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion, to produce a set of reordered coefficients arranged based on the specific pattern selected from the plurality of different scanning patterns and the set of reordered coefficients having been transformed into a symbol state to generate the entropy encoded data. See e.g., page 6, line 1-page 8, line 2. The entropy decoder is operative to entropy decode the entropy encoded data and to output entropy decoded data. See e.g., FIG. 4 (element 110) and page 8, lines 3-6. The decoder includes a scanner operative to scan the entropy decoded data responsive to the scanning mode signal, and to output scanned data, wherein the scanning mode signal indicates the specific pattern selected. See e.g., FIG. 4 (element 120) and page 8, lines 3-6.

Independent claim 34 relates to a method of decoding a compressed video signal. See e.g., page 8, lines 3-6 and FIG. 4. The method includes receiving a coded data signal, the coded data signal including a compressed video signal having entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients arranged based on the selected one of the plurality of different scanning patterns and the set of reordered coefficients having been transformed into a symbol state to generate the entropy encoded data, the coded data signal also including a scanning mode signal indicating the

selected one of the plurality of different scanning patterns wherein the selected one of the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion. See e.g., FIG. 4 and page 8, lines 3-6.

The method further includes entropy decoding the entropy encoded data and outputting entropy decoded data and scanning the entropy decoded data according to the selected one of the plurality of different scanning patterns indicated by the scanning mode signal and outputting scanned data. See e.g., FIG. 4 (elements 110 and 120) and page 8, lines 3-6.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 10-18 and 34-41 are rejected under 35 U.S.C. § 112, first paragraph.

VII. ARGUMENT

Applicant submits that claims 10-18 and 34-41 are fully supported in the specification. For example, the specification discloses that "a mutli-scanner 80 [] scans it according to a plurality of predetermined patterns." Lines 21-23, page 6. Further, the specification discloses that "[the] scanner pattern selector 90 selects the scanning pattern which produces the minimum number of bits to represent the current sub-block." Lines 24-26, page 6.

In addition, the specification also discloses variable length coder 60. One skilled in the art would readily recognize that a variable length coder 60 substitutes symbols with codes to generate the variable length coded data.

Therefore, Applicant submits that recitations of claims 10 and 34 characterized as not being supported in the specification by the Examiner are expressly or inherently disclosed in the original specification as filed.

Claim 11 is believed to be patentable for reasons similar to those submitted above for claims 10 and 34.

The remaining claims are patentable at least by virtue of their dependencies from their respective base claims.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/ Seok-Won Stuart Lee /

Seok-Won Stuart Lee
Limited Recognition No. L0212

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860
WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: August 23, 2006

CLAIMS APPENDIX

CLAIMS 10-18, 34-41 ON APPEAL:

10. A decoder for decompressing a compressed video signal, the compressed video signal containing entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients arranged based on the selected one of the plurality of different scanning patterns and the set of reordered coefficients having been transformed into a symbol state to generate the entropy encoded data, and also containing a scanning mode signal indicating the selected one of the plurality of different scanning patterns, wherein the selected one of the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion, the decoder comprising:

an entropy decoder operative to decode the entropy encoded data and to output entropy decoded data; and

a scanner operative to scan the entropy decoded data according to the selected one of the plurality of different scanning patterns as indicated by the scanning mode signal.

11. A decoder for decoding a coded data signal containing a compressed video signal and a scanning mode signal, the decoder comprising:

an entropy decoder to which is applied the compressed video signal, the compressed video signal including entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a specific pattern selected from a plurality of different scanning patterns, wherein the specific pattern selected from the

plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion, to produce a set of reordered coefficients arranged based on the specific pattern selected from the plurality of different scanning patterns and the set of reordered coefficients having been transformed into a symbol state to generate the entropy encoded data, said entropy decoder being operative to entropy decode the entropy encoded data and to output entropy decoded data; and

a scanner operative to scan the entropy decoded data responsive to the scanning mode signal, and to output scanned data, wherein the scanning mode signal indicates the specific pattern selected.

12. The decoder according to claim 11 wherein the coded data signal further includes additional information.

13. The decoder according to claim 11 wherein the entropy encoded data and the scanning mode signal are multiplexed together as part of the coded data signal.

14. The decoder according to claim 12, wherein the entropy encoded data, the scanning mode signal and the additional information are multiplexed together as part of the coded data signal, and wherein said decoder further includes a demultiplexer which demultiplexes the entropy encoded data, the scanning mode signal and the additional information.

15. The decoder according to claim 11, wherein the entropy encoded data is encoded according to a variable length encoding regime.

16. The decoder according to claim 11, wherein the scanner scans the entropy decoded data according to a runlength decoding regime.

17. The decoder of claim 11, further comprising a dequantizer which dequantizes the scanned data output by said scanner and outputs dequantized data.

18. The decoder of claim 17, further comprising an inverse discrete cosine transformer which inverse discrete cosine transforms the dequantized data output by said dequantizer.

34. A method of decoding a compressed video signal, comprising:

receiving a coded data signal, the coded data signal including a compressed video signal having entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients arranged based on the selected one of the plurality of different scanning patterns and the set of reordered coefficients having been transformed into a symbol state to generate the entropy encoded data, the coded data signal also including a scanning mode signal indicating the selected one of the plurality of different scanning patterns wherein the selected one of the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion;

entropy decoding the entropy encoded data and outputting entropy decoded data; and

scanning the entropy decoded data according to the selected one of the plurality of different scanning patterns indicated by the scanning mode signal and outputting scanned data.

35. The method of claim 34, wherein the coded data signal further includes additional information.

36. The method of claim 34, wherein the entropy encoded data and the scanning mode signal are multiplexed together as part of the coded data signal.

37. The method of claim 35, wherein the entropy encoded data, the scanning mode signal and the additional information are multiplexed together as part of the coded data signal and wherein said decoding step further includes demultiplexing the entropy encoded data, the scanning mode signal and the additional information.

38. The method of claim 34, wherein the entropy encoded data is encoded according to a variable length encoding regime.

39. The method of claim 34, wherein the scanning step comprises scanning the entropy decoded data according to a runlength decoding regime.

40. The method of claim 34, further comprising a step of dequantizing the scanned data output by said scanning step and outputting dequantized data.

41. The method of claim 40, further comprising a step of inverse discrete cosine transforming the dequantized data output by said dequantizing step.

EVIDENCE APPENDIX:

This Appendix is not applicable to this Appeal.

RELATED PROCEEDINGS APPENDIX

This Appendix is not applicable to this Appeal